

## **REMARKS**

### **Claim Amendments**

Claims 18, 43 and 48 have been amended herein to recite that the heterocyclic moiety of Cy is furan or thiophene. New Claims 63-75 have been added herein. Support for new Claims 63-75 can be found in throughout the specification and in Claims 18-29, 43 and 48 as originally filed. No new subject matter has been added.

### **Rejection of Claims 1, 3, 6-18, 23-29, 42-43, 47-48, 57, 59 and 61 Under 35 U.S.C. §112, First Paragraph.**

Claims 1, 3, 6-18, 23-29, 42-43, 47-48, 57, 59 and 61 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action states that replacing “Y<sup>1</sup> is not an ester or amide” in these claims with “Y<sup>1</sup> does not comprise an ester or amide” introduces new matter by way of broadening the scope of the definition of Y<sup>1</sup>.

Applicants respectfully disagree. Paragraph [0015] of the published application recites the phrase “Y<sup>1</sup> does not comprise an ester or amide”. Paragraph [0025] of the published application recites the phrase “Y<sup>2</sup> does not comprise an ester or amide”. Thus, this amendment to the claims does not introduce new matter by way of broadening the scope of either the Y<sup>1</sup> or Y<sup>2</sup> definition. Reconsideration and withdrawal of the rejection are respectfully requested.

### **Rejection of Claims 18, 20, 23-29 and 43 Under 35 U.S.C. §103(a)**

Claims 18, 20, 23-29 and 43 are rejected under 35 U.S.C. §103(a) as being unpatentable over Guthrie *et al.* (US 5,344,843). The Office Action indicates that the Applicant's previous arguments to overcome this rejection were not persuasive.

The Office Action states that Guthrie *et al.* permits substituents on the thiophene ring which overlap with the substituents of the present invention.

Applicants respectfully disagree. Guthrie teaches a formula wherein the heterocyclic moiety may be a substituted thiophene or furan. The rejected claims of the present invention recite a compound wherein the heterocyclic moiety may be an unsubstituted furan, benzofuran,

thiophene or benzothiophene, or a substituted furan, benzofuran, thiophene or benzothiophene, wherein the substituents are neither taught nor suggested by Guthrie.

Claims 18 and 43 have been amended to remove that Cy may be benzofuran or benzothiophene. New claims 63 to 75 have been added wherein Cy is benzofuran or benzothiophene. The new claims do not introduce new subject-matter. Guthrie et al. neither teaches nor suggests benzofuran or benzothiophene.

The Office Action indicates to formula (I) of Guthrie et al. and the definitions of Z, A, B, Q, X, Y, R, R<sup>2</sup> and R<sup>2'</sup>, with specific reference to when Z is S or O, A is a bond, n=5-10, B is CONR<sup>9</sup> and Q is aryl or heteroaryl. However, the Office Action fails to note that the compounds of Guthrie et al. absolutely require the group -C(X)(Y)-C(O)-R<sup>1</sup> as an essential part of the compounds of the general formula thereof, wherein X, Y and R<sup>1</sup> are as defined therein.

Claims 18, 20, 23-29 and 43 of the present application, however, are directed to compounds having Cy optionally substituted by one or two substituents independently selected from the group consisting of C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>6</sub>-C<sub>10</sub> aryl, heteroaryl, heterocyclyl, (C<sub>6</sub>-C<sub>10</sub>)ar(C<sub>1</sub>-C<sub>6</sub>)alkyl, halo, nitro, hydroxyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>6</sub>-C<sub>10</sub> aryloxy, heteroaryloxy, C<sub>1</sub>-C<sub>6</sub> alkoxy-carbonyl, C<sub>6</sub>-C<sub>10</sub> aryloxy-carbonyl, heteroaryloxy-carbonyl, carboxy, and amino. None of these optional substituents fall within the scope of the essential Guthrie group -C(X)(Y)-C(O)-R<sup>1</sup>. Further, the optional substituents of Cy of the present application are not obvious in view of the Guthrie group -C(X)(Y)-C(O)-R<sup>1</sup> to one of skill in the art of chemistry.

The Office Action thirdly argues that, as for utility difference, one trained in the art would be motivated to use compounds of Guthrie et al. for the use taught in that reference (emphasis added). However, Guthrie neither teaches nor suggests anything about inhibition of histone deacetylase. Guthrie states that the compounds of formula I inhibit the enzyme carnitine acyltransferase 1 (CAT-1) and are therefore useful in the prevention of injury to ischemic tissue, and can limit infarct size, improve cardiac function and prevent arrhythmias during and following a myocardial infarction. The Office Action does not provide any evidence that one skilled in the art would be motivated by the teachings of Guthrie to make a compound that had different substituents to create a compound that is an inhibitor of histone deacetylase. Rather, the Office Action merely alleges that such a motivation exists.

Obviousness can only be established by combining or modifying the teachings of the cited references to produce the claimed invention where there is some teaching, suggestion or

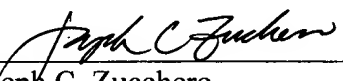
motivation to do so. The level of skill in the art cannot be relied upon to provide the suggestion or motivation. Applicants request that if this rejection is to be maintained that evidence be provided in the form of additional teachings or a sworn Examiner's Declaration to support the motivation requirement. Without such evidence, reconsideration and withdrawal of the rejection are respectfully requested.

### **CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

Dated: *April 3, 2006*  
Keown & Associates  
500 West Cummings Park  
Suite 1200  
Woburn, MA 01801  
Telephone: 781/938-1805  
Facsimile: 781/938-4777

By   
Joseph C. Zuccherro  
Registration No. 55,762